

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 9-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,100,626 to Frey et al. in view of U. S. Patent No. 5,300,068 to Rosar et al.**

4. Regarding **Claims 9, 11, 16, and 17**, Frey teaches an ultrasonic probe, comprising: an ultrasonic element for transmitting and receiving an ultrasonic signal (Abstract); a signal line for transmitting an electric signal to or from the ultrasonic element (Abstract and Fig. 3); and a ground line for supplying a ground potential to the ultrasonic element, the ultrasonic probe further comprising: a sensor signal substrate and a sensor ground substrate connected electrically with the ultrasonic element (Fig. 3); a cable substrate for electrically connecting the sensor signal substrate and the sensor ground substrate with the signal line and the ground line (Fig. 3); and at least a

part of the sensor signal substrate is covered with the sensor ground substrate or the relay ground substrate.(Fig. 3)

5. Frey does not expressly teach that the sensor ground substrate and the cable substrate are connected directly or via a relay ground substrate.
6. Rosar teaches that the sensor ground substrate and the cable substrate are connected directly or via a relay ground substrate (Fig. 3 elements 175-178).
7. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Frey such that a relay ground substrate is used to connect the cable substrate and ground substrate as taught by Rosar, since such a setup would result in better grounding and as a result a cleaner signal with less noise.
8. Regarding **Claims 10**, Frey teaches that at least a part of the cable substrate is covered with the sensor ground substrate or the relay ground substrate. (Fig. 3, Claim 8)
9. Regarding **Claims 12-15**, Frey teaches that at least a part of the ultrasonic element is covered with the sensor ground substrate or the relay ground substrate. (Fig. 3 and Claim 1-3 and 8)

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANJAY CATTUNGAL whose telephone number is (571)272-1306. The examiner can normally be reached on 9:30 - 5:00 pm.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPC

/Long V Le/
Supervisory Patent Examiner, Art Unit 3768